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Biomay Produktions- und  
Handels-Aktiengesellschaft

### Claims

1. A polypeptide selected from the group consisting of:
  - a) polypeptides comprising a fragment of at least 18 consecutive amino acids of the amino acid sequence as shown in SEQ ID NO:1;
  - b) polypeptides comprising an amino acid sequence which has an identity of at least 70% to the amino acid sequence as shown in SEQ ID NO:1; and
  - c) polypeptides consisting of at least 8 contiguous amino acids of the amino acid sequence as shown in SEQ ID NO:1.
2. A polypeptide according to claim 1, comprising a fragment of the amino acid sequence as shown in SEQ ID NO:1 wherein said fragment is capable of binding to IgE antibodies from an individual being allergic against mugwort pollen.
3. A polypeptide according to claim 1 or 2, comprising the amino acid sequence as shown in SEQ ID NO:1.
4. A polypeptide according to any one of claims 1 to 3, characterized in that it is capable of binding to IgE antibodies from an individual being allergic against ragweed pollen.
5. A polynucleotide selected from the group consisting of
  - a) polynucleotides encoding the amino acid sequence as shown in SEQ ID NO:1;
  - b) polynucleotides encoding a polypeptide as claimed in any one of claims 1 to 4; and

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- c) polynucleotides comprising a nucleotide sequence which has an identity of at least 75 % to the nucleotide sequence as shown in SEQ ID NO:2;

or the complementary strand of such polynucleotide.

6. A polynucleotide according to claim 5 comprising the nucleotide sequence as shown in SEQ ID NO:2 or the nucleotide sequence as shown in SEQ ID NO:3.

7. A plasmid or a vector comprising a polynucleotide as claimed in claim 5 or 6.

8. A cell containing a plasmid or a vector as claimed in claim 7 and/or a polynucleotide as claimed in claim 5 or 6.

9. A cell according to claim 8 which is selected from the group consisting of plant cells, bacterial cells and yeast cells.

10. A process for the preparation of a polypeptide as claimed in any one of claims 1 to 4 comprising the step of culturing cells as claimed in claim 8 or 9 under conditions appropriate for the expression of the polypeptide and optionally subsequently recovering the polypeptide.

11. A process according to claim 10 wherein the cells are opened and the polypeptide is recovered using affinity chromatography.

12. An antibody capable of binding to a polypeptide as claimed in any one of claims 1 to 4.

13. An antibody according to claim 12 which is capable of binding to one or several of the polypeptides selected from the group consisting of Amb a I.1, Amb a I.2, Amb a I.3 and Amb a 2.

14. An antibody according to claim 12 which does not bind to any one of the polypeptides selected from the group consisting of Amb a I.1, Amb a I.2, Amb a I.3 and Amb a 2.

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15. A pharmaceutical composition comprising a polypeptide as claimed in any one of claims 1 to 4 and/or a polynucleotide as claimed in claim 5 or 6 and/or an antibody as claimed in any one of claims 12 to 14.
16. The use of a polypeptide as claimed in any one of claims 1 to 4 or a polynucleotide as claimed in claim 5 or 6 or an antibody as claimed in any one of claims 12 to 14 for the preparation of a medicament for the treatment or the prevention or the diagnosis of an allergic disorder.
17. A use according to claim 16 wherein the medicament is administered to an individual to be desensitized.
18. A kit useful for the diagnosis, the treatment and/or the prevention of an allergic disorder comprising a polypeptide as claimed in any one of claims 1 to 4 and/or a polynucleotide as claimed in claim 5 or 6 and/or an antibody as claimed in any one of claims 12 to 14.

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